APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,919	01/30/2004	Tadashi Ohashi	826.1918	3947

21171 7590 04/26/2007	EXAMINER	
STAAS & HALSEY LLP	COUGHLAN, PETER D	
SUITE 700		
1201 NEW YORK AVENUE, N.W.	ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005	2129	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/766,919	OHASHI, TADASHI.
	Examiner	Art Unit
	Peter Coughlan	2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>28 February 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-15</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-15</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>30 January 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☒ All b) ☐ Some * c) ☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1.   This office action is in response to an AMENDMENT entered February 28, 2007

for the patent application 10/766919 filed on January 30, 2004.

2.   The First Office Action of September 29, 2006 is fully incorporated into this Final

Office Action by reference.

Status of Claims

3.   Claims 1-15 are pending.

35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine,
> manufacture, or composition of matter, or any new and useful improvement
> thereof, may obtain a patent therefor, subject to the conditions and requirements
> of this title.

Claims 1-15 are rejected under 35 U.S.C. 101 for nonstatutory subject matter.

The computer system must set forth a practical application of that § 101 judicial

exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-

77. The invention is ineligible because it has not been limited to a substantial practical application. Designing a superclass which has a component as a class, component information and relationships between components as classes is not a practical application. The result has to be a practical application. Please see the interim guidelines for examination of patent applications for patent subject matter eligibility published November 22, 2005 in the official gazette.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. This application seems to be an exercise only with no practical application. Is the existence of component information and relationships between components within a given domain to be used for automotive repair or medical diagnoses? If so then no such results have been claimed. '

The invention must be for a practical application and either:

1) specify transforming (physical thing) or

2) have the FINAL RESULT (not the steps) achieve or produce a

useful (specific, substantial, AND credible),

concrete (substantially repeatable/ non-unpredictable), AND

tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject

matter, must be amended.

A computer-readable medium encoded with a program that when executed

causes a computer to perform a knowledge processing method with reference to a

knowledge processing system formed by a product's hierarchical structure of it's

components information relating to a designed event based on product's development

code name as a super class and a relationship between components as classes has

no practical application. The Examiner also could not find an application which could

be used in a real world setting within the specification. A result that is a practical

application is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. All the claims recite the term 'inference' but

there is not a single algorithm mentioned within the claims or specification detailing

function of the 'inference', concrete input values or defined output. There is no mention

of 'units' which are explained for input variables or resulting output results.

These claims must be amended or withdrawn from consideration.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 4, 9, 14 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. These claims state that relationships between

components change 'over time'. 'Over time' is subjective and vague and has no definite

meaning.

These claims need to be amended or withdrawn from consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed
or described as set forth in section 102 of this title, if the differences between the
subject matter sought to be patented and the prior art are such that the subject
matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 5, 6, 10, 11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagan in view of Jabri. ('Java in a nutshell', referred to as **Flanagan**; U. S. Patent Publication '20020066074, referred to as **Jabri**)

Claims 1, 6, 11

Flanagan teaches storing in a database the product's development code name as a super class having a name inclusively describing a component as a class of component information, the component, and the relationship between the components. (**Flanagan,** p80:7-14, p170:16-39; 'Super class' of applicant is equivalent to 'superclass' of Flanagan. Each class extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan.)

Flanagan does not teach detecting component relating to the product's development code name as a super class stored in the database; generating a relationship between components by an inference based on multivalued logic.

Jabri teaches detecting component relating to the product's development code name as a super class stored in the database (**Jabri,** ¶0033; 'Detecting a component relating' of applicant is equivalent to 'inheritance' of Jabri.); generating a relationship between components by an inference based on multivalued logic. (**Jabri,** ¶0033; 'Multivalued logic' of applicant is equivalent to 'neural network' of Jabri.) It would have

been obvious to a person having ordinary skill in the art at the time of applicant's

invention to modify the teachings of Flanagan by using a neural network as taught by

Jabri to detect a component relating to the product's development code name as a

super class stored in the database; generating a relationship between components by

an inference based on multivalued logic.

For the purpose of using the output of a neural network to determine the

hierarchy relationship between the components instead of the user.

Flanagan teaches configuring the product's hierarchical structure from

information stored in the database and the relationship between components obtained

by the inference. (**Flanagan,** p103:13 through p104:8; An example of configuring a

hierarchical structure' of applicant is illustrated by the code to determine the

'superclasses, object and class hierarchy' of Flanagan.)

Claims 5, 10, 15

Flanagan does not teach on a part of a user who uses a component's information

structure generated on a part of a designer, the component's information structure

designed on the part of the designer is restructured by an inference using multivalued

logic according to information about the product's development code name describing

hierarchical structure and a component's information group.

Jabri teaches on a part of a user who uses a component's information structure

generated on a part of a designer, the component's information structure designed on

the part of the designer is restructured by an inference using multivalued logic according

to information about the product's development code name describing hierarchical

structure and a component's information group. (**Jabri,** ¶0039; 'Restructured' of

applicant is equivalent to 'update objects' of Jabri.) It would have been obvious to a

person having ordinary skill in the art at the time of applicant's invention to modify the

teachings of Flanagan by using a neural network as taught by Jabri to have on a part of

a user who uses a component's information structure generated on a part of a designer,

the component's information structure designed on the part of the designer is

restructured by an inference using multivalued logic according to information about the

product's development code name describing hierarchical structure and a component's

information group.

For the purpose of accommodating changes with additional components such

that the invention will make necessary changes if needed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

Claims 2, 3, 4, 7, 8, 9, 12, 13, 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of Flanagan and Jabri in view of Mehrotra.

('Elements of Artificial Neural Networks', referred to as **Mehrotra**)

Claims 2, 7, 12

Flanagan and Jabri do not teach the relationship between components includes a

weight which weights a relationship between components obtained by the inference

based on the multivalued logic and a hierarchical structure.

Mehrotra teaches the relationship between components includes a weight which

weights a relationship between components obtained by the inference based on the

multivalued logic and a hierarchical structure. (**Mehrotra, p11, 20**; 'Weights' of applicant

is equivalent to 'w_1 through w_n' of Mehrotra. Each component can be viewed as a node

of the neural network. The 'relationship between components' of applicant is equivalent

to the neural network of Mehrotra.) It would have been obvious to a person having

ordinary skill in the art at the time of applicant's invention to modify the combined

teachings of Flanagan and Jabri by using weights as indicators as taught by Mehrotra to

have the relationship between components includes a weight which weights a

relationship between components obtained by the inference based on the multivalued

logic and a hierarchical structure.

For the purpose of using standard neural network structure for obtaining reliable

results

Claims 3, 8, 13

Flanagan and Jabri do not teach wherein said generating, a new component is generated when the new component can be generated to associate components by the inference, and is associated with another component so that the new component's information can be structured.

Mehrotra teaches wherein said generating, a new component is generated when the new component can be generated to associate components by the inference, and is associated with another component so that the new component's information can be structured. (**Mehrotra,** p20, If a new component is generated, then an additional node is simply added to the neural network with the respective connection with the remaining nodes (components) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Flanagan and Jabri by being able to modify as taught by Mehrotra to have wherein said generating, a new component is generated when the new component can be generated to associate components by the inference, and is associated with another component so that the new component's information can be structured.

For the purpose of being able to adapt to a changing environment.

Claims 4, 9, 14

Flanagan and Jabri do not teach in said generating, a temporal inference on component's information structure described in a component group is conducted and a

relationship between components changing over time with described component's information taken into account is included in the knowledge structure.

Mehrotra teaches in said generating, a temporal inference on component's information structure described in a component group is conducted and a relationship between components changing over time with described component's information taken into account is included in the knowledge structure. (**Mehrotra,** p31:1 through p32:26; 'Temporal inference' of applicant is equivalent to 'forecasting' of Mehrotra.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Flanagan and Jabri by being able to use time as an input variable as taught by Mehrotra to have a temporal inference on component's information structure described in a component group is conducted and a relationship between components changing over time with described component's information taken into account is included in the knowledge structure.

For the purpose of evaluating situations in which time is a factor.

Response to Arguments

5.   Applicant's arguments filed on February 28, 2007 for claims 1-15 have been fully considered but are not persuasive.

6.   In reference to the Applicant's argument:

Rejections under 35 U.S.0 § 101

On pages 2 and 3 of the Office Action mailed September 29, 2006 claims 1-15 were rejected under 35 U.S.0 § 101. The Office Action stated in the last paragraph on page 3, "[c]laims that only generate classes and subclasses from a super class are not · statutory. A result that is a practical application is required." The Office Action did not support its broad assertion that generating classes and subclasses from a super class is not statutory and the Applicants submit that support for this assertion cannot be found, in case law or even the MPEP. Due to the lack of support for the requirements on page 3 of the Office Action, the § 101 rejection is improper.

Furthermore, even if the test set forth on page 3 of the Office Action is applied, claims 1-15 recite statutory subject matter. The Office Action asserted that there was no practical application that included "transforming ... [a] physical thing ... or hav[ing] the FINAL RESULT ... achieve or produce a useful ..., concrete ..., AND tangible ... result" (Office Action, page 3, lines 9-13) recited in the claims. Contrary to this assertion, claims 1, 6 and 11 all recite transforming a physical thing by "storing in a database" (claim 1, line 7 and claims 6 and 11, line 5).

Furthermore, the method performed upon execution of the program encoded on the computer readable medium recited in claim 1 ends by "configuring the product's hierarchical structure from information stored in the database and the relationship between the components obtained by the inference." The preamble of claim I recites "a knowledge processing system formed by a product's hierarchical structure of its components information" (claim 1, lines 3-4) and the first operation recited in claim 1 is "storing in a database the product's development code name as a super class having a name inclusively describing a component as a class of the component information ..." (claim 1, lines 7-8). Thus, "configuring the product's hierarchical structure" as recited at the end of claim I requires a physical change in the data stored in the database.
    It is submitted that making changes in a database is a practical application, as databases are widely used in the real world for many purposes. The statements at page 3, lines 5-7 of the Office Action that specific uses, such as "automotive repair" or "medical diagnoses" must be recited adds a requirement for a narrowly recited practical application that is not found in the law or MPEP § 2106.

Furthermore, claim 11 is directed to a system which includes "a storage unit" (claim.11, line 5) and "an inference unit ... detecting a class ... generating a relationship between the components by an inference based on multivalued logic, and configuring a knowledge structure from information stored in the database ..." (claim 11, lines 9-11). It is clear from the specification, that "the relationship between new classes obtained as a result of the inference by a computer can be a part of the knowledge structure" (application, page 9, lines 2-4); thus, the "inference unit" (claim 11, line 9) of a

"components information processing system" (claim 1, line 1) should be interpreted as "a personal computer, a work station, etc." (application, page 2, lines 11-12). The rejection under 35 U.S.0 § 101 did not cite any reason why a system comprising hardware that includes a storage unit and a personal computer is not statutory subject matter.

For the above reasons, it is submitted that claims 1, 6 and 11, as well as claims 2-5, 7-10 and 12-15 which depend therefrom, are directed to patentable subject matter.

Examiner's response:

Applicant's argument that storing information is a transformation of a physical

object. Before and after the storing of information the memory, database, storage unit

or storage device, which stores the information remains a memory, database, storage

unit or storage device and the re is no physical transformation. The 'generation of a

relationship' of applicant remains within the computer and thus is an exercise only.

There is no specified use of application with either the claims or specification. The only

way to tell the difference between one application and another in a computer system is

by the practical application in which is provides. None is provided Office Action stands.

7.   In reference to the Applicant's argument:

Rejections under 35 U.S.0 § 112

On page 4 of the Office Action claims 4, 9 and 14 were rejected under the second paragraph of 35 U.S.C. § 112 for use of the terms "change with time" and "taken into account" as recited, for example on lines 3-4 of claim 4. The Office Action referred to the lack of specificity regarding "the length of the window of time" and the non-existence of a "'taken into account' algorithm" (Office Action, page 4, lines 10-11). It is submitted that the level of specificity required in the Office Action is not required by the second paragraph of 35 U.S.0 § 112.

As amended, the last 3 lines of claim 4 recites "a relationship between components changing over time with described component's information taken into account, is included in the component's information structure" and similar limitations are now recited in claims 9 and 14. It is submitted that this limitation is a proper broad recitation of the component's information structure. As stated in the title of section 2173.04 of the MPEP, "Breadth Is Not Indefiniteness" and, therefore, withdrawal of the rejection is respectfully requested.

Examiner's response:

Despite the amended claims the original rejection has not been addressed. No

length of time has been addressed along with 'taking into account the component's

information structure' is vague. Office Action stands.

8.   In reference to the Applicant's argument:

Rejections under 35 U.S.C. 102(b)

On pages 4-7 of the Office Action, claims 1-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by an article by Osawa, entitled, "Generation and Evaluation of Glyphs Representing Superclass-subclass relationships", in an IEEE publication published in 2000 that was identified only by the ISBN number 0-7695-0840-5. It is assumed that the article was published in the Proceedings of the 2000.IEEE International Symposium on Visual Languages. If Osawa continues to be used in rejecting the claims, the Examiner is respectfully requested to confirm this assumption.

Osawa disclosed glyph representations of classes (Abstract, lines 1-3), but is not enabling with respect to any element recited in the computer readable medium, method or system recited in any of claims 1-15. As stated in section 2121.01 of the MPEP, "[t]he disclosure in the assertedly anticipating reference must provide an enabling disclosure of the desired subject matter, merely naming or description [sic] of the subject matter is insufficient, if it cannot be produced without undue experimentation" (quoting from Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research, 346 F.3d 1051, 1054). For example, "inference by multivalued logic", recited in lines 10-11, was cited as being anticipated by "initiator (starting symbol)" and "generator (rewriting rule)" of Osawa. The generator in Osawa was further described as a triangular shape on page 82, column 1, line 2. Nothing in Osawa has been found that would allow one skilled in the art to construct an "inference by

multivalued logic" from a starting symbol and a triangular shape without undue experimentation. Therefore, it is submitted that claims 1-15 are not anticipated by Osawa and withdrawal of the prior art rejections is respectfully requested.

Examiner's response:

Osawa is no longer used as a reference due to the amended claims. Flanagan and Jabri are used for the independent claims. Flanagan is used to teach 'Super class' of applicant is equivalent to 'superclass' of Flanagan. Each class extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. (**Flanagan,** p80:7-14, p170:16-39) And an example of configuring a hierarchical structure' of applicant is illustrated by the code to determine the 'superclasses, object and class hierarchy' of Flanagan. (**Flanagan,** p103:13 through p104:8) Jabri is used to teach 'Detecting a component relating' of applicant is equivalent to 'inheritance' of Jabri. (**Jabri,** ¶0033) 'Multivalued logic' of applicant is equivalent to 'neural network' of Jabri. (**Jabri,** ¶0033) Office Action stands.

Examination Considerations

9.   The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in

the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ

541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The

Examiner has the full latitude to interpret each claim in the broadest reasonable sense.

Examiner will reference prior art using terminology familiar to one of ordinary skill in the

art. Such an approach is broad in concept and can be either explicit or implicit in

meaning.

10.   Examiner's Notes are provided to assist the applicant to better understand the

nature of the prior art, application of such prior art and, as appropriate, to further

indicate other prior art that maybe applied in other office actions. Such comments are

entirely consistent with the intent and sprit of compact prosecution. However, and

unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that

one of ordinary skill in the art would find inherently appropriate.

11.   Examiner's Opinion: Paragraphs 9 and 10 apply. The Examiner has full latitude

to interpret each claim in the broadest reasonable sense.

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

13.   Claims 1-15 are rejected.

Correspondence Information

14.   Any inquiry concerning this information or related to the subject disclosure should

be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-

5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45

p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor David Vincent can be reached at (571) 272-3080. Any response to this

office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 272-3150 (for formal communications intended for entry.)

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions

on access to Private PAIR system, contact the Electronic Business Center (EBC) at

866-217-9197 (toll free).

Peter Coughlan

4/23/2007
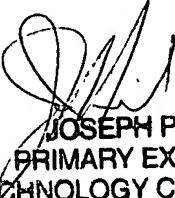
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